

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-88. (canceled)

89. (previously presented) A method for suppressing differentiation of blood precursor cells and hematopoietic stem cells in vitro, comprising contacting said cells in vitro with a serrate-1 peptide, thereby suppressing differentiation of said cells, and wherein said peptide comprises SEQ ID NO: 5.

90. (previously presented) A method for suppressing differentiation of blood precursor cells and hematopoietic stem cells in vitro, comprising contacting said cells in vitro with a serrate-1 peptide, thereby suppressing differentiation of said cells, and wherein said peptide comprises SEQ ID NO: 6.

91. (previously presented) A method for suppressing differentiation of blood precursor cells and hematopoietic stem cells in vitro, comprising contacting said cells in vitro with a serrate-1 peptide, thereby suppressing differentiation of said cells, and wherein said peptide comprises SEQ ID NO: 7.

92-100. (canceled)

101. (new) The method according to claim 89, further comprising contacting said cells in the presence of a compound selected from the group consisting of Stem Cell Factor(SCF), interleukin-3 (IL-3), interleukin-6 (IL-6), erythropoietin (EPO), and Granulocyte Stimulating Factor (G-CSF).

102. (new) The method according to claim 90, further comprising contacting said cells in the presence of a compound selected from the group consisting of Stem Cell Factor(SCF), interleukin-3 (IL-3), interleukin-6 (IL-6), erythropoietin (EPO), and Granulocyte Stimulating Factor (G-CSF).

103. (new) The method according to claim 91, further comprising contacting said cells in the presence of a compound selected from the group consisting of Stem Cell Factor(SCF), interleukin-3 (IL-3), interleukin-6 (IL-6), erythropoietin (EPO), and Granulocyte Stimulating Factor (G-CSF).

104. (new) The method according to claim 89, further comprising contacting said cells in the presence of Stem Cell Factor(SCF).

105. (new) The method according to claim 90, comprising contacting further comprising contacting said cells in the presence of Stem Cell Factor(SCF).

106. (new) The method according to claim 91, further comprising contacting said cells in the presence of Stem Cell Factor(SCF).

107. (new) A method for suppressing colony formation of blood precursor cells in vitro, comprising contacting said cells in vitro with a serrate-1 peptide, thereby suppressing colony formation, and wherein said peptide is selected from the group consisting of SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

108. (new) The method according to claim 107, wherein said peptide is SEQ ID NO: 5.

109. (new) The method according to claim 107, wherein said peptide is SEQ ID NO: 6.

110. (new) The method according to claim 107, wherein said peptide is SEQ ID NO: 7.

111. (new) The method according to claim 107, further comprising contacting said cells in the presence of a compound selected from the group consisting of Stem Cell Factor(SCF), interleukin-3 (IL-3), interleukin-6 (IL-6), erythropoietin (EPO), and Granulocyte Stimulating Factor (G-CSF).

112. (new) The method according to claim 107, further comprising contacting said cells in the presence of Stem Cell Factor(SCF).

113. (new) A method for suppressing colony formation of CD 34 positive blood precursor cells in vitro, comprising contacting said cells in vitro with a serrate-1 peptide, thereby suppressing formation colony formation, and wherein said peptide is selected from the group consisting of SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

114. (new) The method according to claim 113, wherein said peptide is SEQ ID NO: 5.

115. (new) The method according to claim 113, wherein said peptide is SEQ ID NO: 6.

116. (new) The method according to claim 113, wherein said peptide is SEQ ID NO: 7.

117. (new) The method according to claim 113, further comprising contacting said cells in the presence of a compound selected from the group consisting of Stem Cell Factor(SCF), interleukin-3 (IL-3), interleukin-6 (IL-6), erythropoietin (EPO), and Granulocyte Stimulating Factor (G-CSF).

118. (new) The method according to claim 113, further comprising contacting said cells in the presence of Stem Cell Factor(SCF).